

ICR Number XXXX.XX  
OMB Control Number: XXXX-XXXX  
Expiration Date: mm/dd/yyyy

Plant ID: **Insert Plant ID**  
Plant Name: **Insert Plant Name**



## Steam Electric Questionnaire Second FRN Version Draft

### PART A - STEAM ELECTRIC POWER PLANT OPERATIONS

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Plant ID: Insert Plant ID  
Plant Name: Insert Plant Name

## **PART A. STEAM ELECTRIC POWER PLANT OPERATIONS**

### **INSTRUCTIONS**

Complete Part A of the questionnaire for your plant. As you are completing the electronic form, note the following: When you enter your plant name and plant ID on the Part A Table of Contents tab, all name and ID fields throughout Part A will automatically populate. Refer to the overall questionnaire instructions, the glossary, and the acronym list for assistance with completing Part A.

Please provide all free response answers in the highlighted yellow areas. Throughout Part A, you may need to make copies of certain sections/questions. Instructions are provided throughout Part A regarding making copies. Note that outfall number or steam electric generating unit ID must be populated on the copied tab or section, located in the upper right corner under "Plant ID" and "Plant Name", in order to correlate the requested information with the correct outfall or steam electric generating unit.

Where the questionnaire indicates to provide an attachment, an electronic format (e.g., PDF) is preferred; however, hardcopies are also acceptable.

Use the Comments tab at the end of Part A to do the following: provide additional information as requested in certain questions within Part A; indicate atypical data (e.g., if 2009 information is not representative of normal operations); and note methods used to make best engineering estimates in the event that exact data are not available.

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 1.1. Plant Contact Information  
**Instructions:** Throughout Section 1.1 (Questions A1-1 to A1-5), provide information requested on plant contacts. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A1-1.** Provide the physical plant address in the yellow spaces provided below.

Plant Name:   
 Street Address:   
 City:   
 State:  Zip Code:

**CBI?**  
 Yes

**A1-2.** Provide the name, title, telephone and fax numbers, and e-mail address of the primary contact for technical information supplied in this questionnaire.

Primary Technical Contact Name:   
 Primary Technical Contact Title:   
 Email:   
 Street Address:   
 City:   
 State:  Zip Code:   
 Telephone Number:   
 Fax Number:   
 Convenient time to call between (Eastern Time):    
 to

**CBI?**

Yes

**A1-3.** Provide the name, title, telephone and fax numbers, and e-mail address of the secondary contact for technical information supplied in this questionnaire.

Secondary Technical Contact Name:

Secondary Technical Contact Title:

Email:

Street Address:

City:

State:

Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time):    
to

**CBI?**

Yes

**A1-4.** Provide the name, title, telephone and fax numbers, and e-mail address of the primary contact for economic/financial information supplied in this questionnaire.

Primary Economic/Financial Contact Name:

Primary Economic/Financial Contact Title:

Email:

Street Address:

City:

State:

Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time):    
to

**CBI?**  
 Yes

**A1-5.** Provide the name, title, telephone and fax numbers, and e-mail address of the secondary contact for economic/financial information supplied in this questionnaire.

Secondary Economic/Financial Contact Name:

Secondary Economic/Financial Contact Title:

Email:

Street Address:

City:

State:

Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time):

to

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 1.2. General Plant Operating Characteristics

**Instructions:** Throughout Section 1.2 (Questions A1-6 to A1-14), provide information requested on general *plant* operating characteristics. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A1-6.** Is the plant permanently retired or will it be permanently retired by December 31, 2011?

- Yes (Continue)
- No (Stop)



**STOP! IF YOU ANSWERED NO TO QUESTION A1-6,  
 DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

**CBI?**  
 Yes

**A1-7.** Does the plant generate or have the potential to generate electricity from a steam electric generating unit (i.e., a generating unit that utilizes a thermal cycle employing the steam/water system as the thermodynamic medium (steam turbine))? [NOTE: Combined cycle systems with at least one associated steam turbine are considered steam electric generating units.]

- Yes (Continue)
- No, this plant does not generate or have the potential to generate electricity from a steam electric generating unit (Stop)



**STOP! IF YOU ANSWERED NO TO QUESTION A1-7,  
 DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

**CBI?**  
 Yes

**A1-8.** Indicate all of the fossil or nuclear fuels that the plant used to generate electricity in 2009 (refer to Table A-17 for a further breakdown of fossil-type fuels in the "Type of Fuel" tab). [NOTE: Do **NOT** include fuels only used for start up when answering this question.]

- Coal
- Oil
- Gas
- Petroleum Coke
- Nuclear Fuel
- None (the plant did not use fossil or nuclear fuels other than for start u



**STOP! IF YOU ANSWERED NONE IN QUESTION A1-8,  
 DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

**CBI?**  
 Yes

**A1-9.** Identify how the plant uses/handles the electricity generated and indicate the percent of **electricity** by end use/handling. [Check all boxes that apply.]

- Used on site \_\_\_\_\_ %
- Distributed for sale \_\_\_\_\_ %
- Other \_\_\_\_\_ %

If "Other" was selected, use the yellow space below to provide a description of electricity end use/handling.

**CBI?**  
 Yes

**A1-10.** Provide the primary, secondary, and tertiary six-digit North American Industry Classification System (NAICS) codes that best describe the plant's activities. Refer to the U.S. Census Bureau's website to identify appropriate NAICS codes (<http://www.census.gov/eos/www/naics/>).

Primary NAICS: \_\_\_\_\_

Secondary NAICS: \_\_\_\_\_

Tertiary NAICS: \_\_\_\_\_

**CBI?**

Yes

**A1-11.** Is the generation of electricity the *primary purpose* (i.e., the predominant source of revenue and principal reason for operation) of the plant?

Yes

No, specify the primary purpose of the plant to t

[Redacted]



**STOP! IF YOU ANSWERED NO IN QUESTION A1-11,  
DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

**CBI?**

Yes

**A1-12.** Identify how the plant uses the steam and other forms of useful thermal energy (e.g., heat) generated at the plant and indicate the percent of steam by use. [Check all boxes that apply.]

Electricity Generation

[Redacted] %

Heating and/or Cooling

[Redacted] %

Other

[Redacted] %

If "Other" was selected, use the space below to provide a description of the use for steam.

[Redacted]

**CBI?**

Yes

**A1-13.** Provide the total plant nameplate electric generating capacity and the total electric net summer and winter capacities.

Nameplate capacity [Redacted] MW

Net summer capacity [Redacted] MW

Net winter capacity [Redacted] MW



**CBI?**

Yes

**A1-14.** In Table A-1, provide the total net and *gross electrical generation* for all electric generating units at the plant during calendar years 2007 through 2009.

**Table A-1. Net and Gross Plant Electrical Generation for 2007-2009**

Calendar Year	Net Electrical Generation (MW-hrs)	Gross Electrical Generation (MW-hrs)
2007	MW-hrs	MW-hrs
2008	MW-hrs	MW-hrs
2009	MW-hrs	MW-hrs

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 2.1. Plant Identification and Information on Permits and Studies  
**Instructions:** Throughout Section 2.1 (Question A2-1 to A2-4), provide information requested on plant identity, permits, and studies. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A2-1.** Provide the identification code of this plant as reported on U.S. DOE/EIA Form-860 (2007), "Annual Electric Generator Report," schedule 2, line 1.

EIA Plant Identification Code:   Check here if not applicable

**CBI?**  
 Yes

**A2-2.** Provide the identification code of this plant as used when reporting to the Rural Utilities Service (RUS).

RUS Plant Identification Code:   Check here if not applicable

**CBI?**  
 Yes

**A2-3.** Did the plant conduct any Environmental Assessment (EA) or Environmental Impact Statement (EIS) studies on receiving waters or pond/impoundments reported in Table A-4?

- Yes (Continue)
- No (Skip to Question A2-4)

If yes, please attach results from the study(ies).

- I have attached the results from the study(ies)
- I did not attach the results from the study(ies). Exp

**CBI?**  
 Yes

**A2-4.** In Table A-2, provide a list of the plant's most recently approved permits that are associated with industrial activities. If the plant has more than one ID for a permit type, list all IDs in the space provided. Also indicate if the plant has a new/pending permit under development.

Note: Do **NOT** include the following types of permits: permits required for construction of wastewater and/or sanitary sewage facilities, erosion and sediment control permits associated with construction activities, temporary and general permits for hydrostatic testing water, water obstruction and encroachment permits, and/or water allocation permits.

**Table A-2. Permit Information**

Permit Type	Permit ID(s)	Approval Date		Expiration Date		New/Pending Permit is Under Development
		Month	Year	Month	Year	
National Pollutant Discharge Elimination System (NPDES)						
Resource Conservation and Recovery Act (RCRA)						
Stormwater						
Air Pollution Operating						
Underground Injection Control (UIC)						

**If the plant does not have a NPDES permit, skip to Section 3.**



**CBI?**

Yes

**A2-7.** Does the outfall release water to a discharge canal prior to discharging to surface water?

Yes

No

**CBI?**

Yes

**A2-8.** Provide the receiving surface water name and type of surface water. If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

Receiving Surface Water Name:

Type of Surface Water:

Other, specify:

If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

**CBI?**

Yes

**A2-9.** Has a mixing zone been applied to the outfall?

Yes

No

**CBI?**

Yes

**A2-10.** In Table A-3, provide the percent contribution that each wastewater listed has to the total outfall flow.

**Table A-3. Wastewaters Discharged Through Outfall**

Wastewater	Percent Contribution of Outfall Flow
Cooling Water	
Fly Ash Sluice	
Bottom Ash Sluice	
FGD Scrubber Wastewater (slurry blowdown or scrubber purge)	
Leachate from Coal Combustion Residue Landfills or Ponds/Impoundments	
Coal Pile Runoff	
Metal Cleaning Waste	
Other	
Total	100%

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title: 3. Ponds/Impoundments**  
**Instructions:** Throughout Section 3 (Questions A3-1 to A3-3), provide information for all *ponds/impoundments* the plant has or is currently constructing/installing or planning to construct/install by December 31, 2020.

**CBI?**  
 **Yes:** **A3-1.** Does the plant have or is the plant currently constructing/installing or planning to construct/install by December 31, 2020 any ponds/impoundments used for the storage, treatment, and/or disposal of *process wastewater, residues, or by-products* (including *sludge* or water streams containing residues or by-products)?

Note: This includes ponds/impoundments located on non-adjointing property that are under the operational control of the plant.

- Yes (Continue)
- No (Skip to Section 4)

**CBI?**  
 **Yes:** **A3-2.** In Table A-4 below list all pond/impoundment units located at the plant, or pond/impoundments the plant is currently constructing/installing or planning to construct/install by December 31, 2020, including those located on non-adjointing property, used for storage, treatment, and/or disposal of process wastewater, residues, or by-products (including sludge or water streams containing residues or by-products). For each pond/impoundment unit, EPA assigned an ID number (e.g., SPD-1, SPD-2) in Table A-4, which will be used throughout the remainder of the survey. In the "Plant Designation" column, provide the plant's name for each pond/impoundment unit.

Additionally, provide the latitude and longitude at the *pond outlet* (see glossary), the closest distance from the pond/impoundment unit to the nearest surface water, the year the pond/impoundment unit was brought online (or is planned to be brought online), and indicate whether the pond/impoundment is lined or unlined and whether *leachate* (see glossary) is collected from the pond/impoundment (i.e. the pond/impoundment has a leachate collection system). Note: If the pond/impoundment does not have a pond outlet, provide the latitude and longitude corresponding to the emergency outlet for the pond/impoundment.

**Table A-4. Identification of Plant Pond/Impoundment Units**

Pond/ Impoundment Unit ID	Plant Designation	Latitude and Longitude at Pond Outlet			Is the Pond Lined?	Is Leachate (including Leaks or Seepage) Collected?	Closest Distance to Nearest Surface Water (ft)	Year Initially Brought Online Or Planned to be Brought Online	Is the Pond/ Impoundment Inactive?
		deg	min	sec					
<i>Active/Inactive/Open Pond/Impoundment Units</i>									
SPD-1		Lat:							
		Long:							
SPD-2		Lat:							
		Long:							
SPD-3		Lat:							
		Long:							
SPD-4		Lat:							
		Long:							
SPD-5		Lat:							
		Long:							
SPD-6		Lat:							
		Long:							
SPD-7		Lat:							
		Long:							

SPD-8		Lat:							
		Long:							
SPD-9		Lat:							
		Long:							
SPD-10		Lat:							
		Long:							
SPD-11		Lat:							
		Long:							
SPD-12		Lat:							
		Long:							
SPD-13		Lat:							
		Long:							
SPD-14		Lat:							
		Long:							
<b>Retired/Closed Pond/Impoundment Units</b>									
RET-SPD-1		Lat:							
		Long:							
RET-SPD-2		Lat:							
		Long:							
RET-SPD-3		Lat:							
		Long:							
RET-SPD-4		Lat:							
		Long:							
<b>Planned Pond/Impoundment Units</b>									
SPD-A		Lat:							
		Long:							
SPD-B		Lat:							
		Long:							
SPD-C		Lat:							
		Long:							
SPD-D		Lat:							
		Long:							
SPD-E		Lat:							
		Long:							

**CBI?**  
 Ye

**A3-3.** In Table A-5 below, indicate all process wastewater, residues, or by-products (or sludges or water streams containing the wastes, residues or by-products) that are stored, treated, and/ or disposed of in each pond/impoundment unit identified in Table A-4. [Check all boxes that apply.] For solid waste and process wastewater not listed in the checkboxes or the drop down menu provide the name and description in the yellow box provided. Do not include treatment chemicals that are added to the pond/impoundment.

**Table A-5. Wastes Stored or Disposed of in Plant Pond/Impoundment Units**

Pond/ Impoundment Unit ID	Solid Waste		Process Wastewater	
		<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate	
<input type="checkbox"/> Bottom		<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash		<input type="checkbox"/> FGD Pozzolanic M		
		<input type="checkbox"/> Solids from Dry		
Other, specify:			Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
	<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
	<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
		<input type="checkbox"/> Solids from Dry		
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
	<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
	<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
		<input type="checkbox"/> Solids from Dry		
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
	<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
	<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
		<input type="checkbox"/> Solids from Dry		
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		



<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	

<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
<input type="checkbox"/> Boiler Sl	<input type="checkbox"/> FGD Calcium Sulfate		
<input type="checkbox"/> Bottom	<input type="checkbox"/> FGD Calcium Sulfite - I		
<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic M		
	<input type="checkbox"/> Solids from Dry		
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	
Other, specify:		Other, specify:	

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title: 4. Landfills**

**Instructions:** Throughout Section 4 (Questions A4-1 to A4-3), provide information for *landfills* (see glossary) the plant has or is currently constructing/installing or planning to construct/install by December 31, 2020.

**CBI?**  
 Yes

**A4-1.** Does the plant have or is the plant currently constructing/installing or planning to construct/install by December 31, 2020 any landfills used for the storage or disposal of *process wastewater, residues, or by-products*?

Note: This includes landfills located on non-adjoining property that are under the operational control of the plant.

- Yes (Continue)  
 No (Skip to Section 5)

**CBI?**  
 Yes

**A4-2.** In Table A-6 below, list all landfills located at the plant, or landfills the plant is currently constructing/installing or planning to construct/install by December 31, 2020, including those located on non-adjoining property, used for storage or disposal of process wastewater, residues or by-products. For each landfill, EPA assigned an ID number (e.g., LANDFILL-1, LANDFILL-2) in Table A-6, which will be used throughout the remainder of the survey. In the "Plant Designation" column, provide the plant's name for each landfill. Additionally, provide the latitude and longitude at the center of the landfill, the closest distance from the landfill to the nearest surface water, the year the landfill was brought online (or is planned to be brought online), and indicate whether the landfill is lined or unlined and whether *leachate* is collected from the landfill (i.e. the landfill has a *leachate collection system*).

**Table A-6. Identification of Plant Landfills**

Landfill ID	Plant Designation	Latitude and Longitude at Center of Landfill				Is the Landfill Lined?	Is Leachate Collected?	Closest Distance to Nearest Surface Water (ft)	Year Initially Brought Online Or Planned to be Brought Online	Is the Landfill Inactive?
		deg	min	sec						
<i>Active/Inactive/Open Landfills</i>										
LANDFILL-1		Lat:								
		Long:.								
LANDFILL-2		Lat:								
		Long:.								
LANDFILL-3		Lat:								
		Long:.								
LANDFILL-4		Lat:								
		Long:.								

<b>Retired/Closed Landfills</b>									
RET- LANDFILL-1		Lat:							
		Long:							
RET- LANDFILL-2		Lat:							
		Long:							
RET- LANDFILL-3		Lat:							
		Long:							
RET- LANDFILL-4		Lat:							
		Long:							
<b>Planned Landfills</b>									
LANDFILL-A		Lat:							
		Long:							
LANDFILL-B		Lat:							
		Long:							
LANDFILL-C		Lat:							
		Long:							
LANDFILL-D		Lat:							
		Long:							

**CBI?**  
 Yes

**A4-3.** In Table A-7 below, indicate all *process wastewater, residues* or by-products that are stored or disposed of in each landfill identified in Table A-6. [Check all boxes that apply.] For solid waste not listed in the checkboxes provide the name and description in the yellow box provided.

**Table A-7. Wastes Stored or Disposed of in Landfills**

Landfill ID	Waste Stored or Disposed of in Landfill	
	<input type="checkbox"/> Boiler Sla	<input type="checkbox"/> FGD Calcium Sulfate (G
	<input type="checkbox"/> Bottom A	<input type="checkbox"/> FGD Calcium Sulfite - Not
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Mat
		<input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla	<input type="checkbox"/> FGD Calcium Sulfate (G
	<input type="checkbox"/> Bottom A	<input type="checkbox"/> FGD Calcium Sulfite - Not
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Mat
		<input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla	<input type="checkbox"/> FGD Calcium Sulfate (G
	<input type="checkbox"/> Bottom A	<input type="checkbox"/> FGD Calcium Sulfite - Not
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Mat
		<input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla	<input type="checkbox"/> FGD Calcium Sulfate (G
	<input type="checkbox"/> Bottom A	<input type="checkbox"/> FGD Calcium Sulfite - Not
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Mat
		<input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	

	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G) <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G) <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G) <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G) <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	

	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
	<input type="checkbox"/> Boiler Sla <input type="checkbox"/> Bottom A <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (G <input type="checkbox"/> FGD Calcium Sulfite - Not <input type="checkbox"/> FGD Pozzolanic Mat <input type="checkbox"/> Solids from Dry F
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	

Plant ID: Insert Plant ID

Plant Name: Insert Plant Name

**Part: A**

**Section Title:** 5. Plant Property and Water Balance

**Instructions:** Throughout Section 5 (Questions A5-1 to A5-3), provide information requested on plant property and water balance. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A5-1.** If not already reported to EIA on U.S. DOE/EIA Form-860 (2007), schedule 2, line 6, provide the geographical coordinates of the *plant* (degrees, minutes, seconds).

Geographical coordinates were reported to the EIA on U.S. DOE/EIA Form-860 (2007)

Coordinate	Degrees	Minutes	Seconds
Latitude			
Longitude			

**CBI?**  
 Yes

**A5-2.** Attach an aerial map showing the property boundary of the *plant*. Provide as many maps as necessary. Number each map diagram in the upper right corner; the first map should be numbered MAP-1, the second MAP-2, etc. Include the plant name and plant ID in the upper right hand corner of each diagram.

Diagram is attached.

**CBI?**  
 Yes

**A5-3.** Attach a water balance diagram for the plant that shows all sources of water, plant *process operations*, process wastewaters generated and how they are handled/*treated*, flow rates of all water streams, and all outfalls at the plant. Specific instructions for the diagram are provided in the checklist below.



**NOTE: You may use an existing diagram, such as a water balance diagram included in the plant's NPDES Form 2C, and mark the additional required information on the diagram by hand. You may also use a diagram from previous years as long as the diagram is still representative of current operations.**

Provide as many diagrams as necessary to convey the information requested in the checklist below. Number each block diagram in the upper right corner; the first block diagram should be numbered WB-1, the second WB-2, etc. Include the plant name and plant ID in the upper right hand corner of the diagram.

Diagram is attached.

### Block Diagram Checklist

**Mark the boxes below to verify that you have completed each checklist item...**

- Include the water balance diagram number, plant name, and plant ID on the diagram.
- Include each steam electric generating unit on the diagram. Represent all steam electric generating units as a block or other shape. Use EPA-assigned numbers designated in Table A-8 in the tab "Part A Section 6" to label the units.
- Show and label all *process operations*, using EPA-assigned numbers from this and other parts of the questionnaire if applicable. If a process operation does not have an EPA-assigned number, use the plant-designated name for the process operation.
- Show and label all water sources (e.g., lakes and rivers), *process wastewater* generated by each steam electric generating unit and process operation, and outfalls. Use the codes provided in the Codes Tables tab. Effluent streams may include process wastewater and *sludges*.

- Identify all *wastewater treatment systems* used to treat the process wastewaters generated by the steam electric generating units. Represent the wastewater treatment systems as a block or other shape. Use EPA-assigned numbers from other parts of the questionnaire if applicable. If the wastewater treatment system does not have an EPA-assigned number, use the plant-designated name for the wastewater treatment system.
- Identify the final destination of the *treated* wastewater and process wastewater (e.g., treated wastewater effluent to *POTW* or surface waters; solid wastes to on- or off-site destinations). Use codes provided in the Codes Table tab.
- Indicate, as appropriate, where treated wastewater is *reused* or *recycled* within the plant (e.g., reuse of settling pond/impoundment water as fly ash sluice).
- Identify all outfall locations. Include *NPDES permit* outfall numbers, if applicable.
- Provide the typical flow rates for all streams on the diagram (in gpm or gpd). If the wastewater stream is intermittent, provide amount and frequency; for example "100 gal, twice/day, 100 dpy" or "1000 gpm, 4 hpd, 365 dpy". For sludges, provide amount in tpd.

If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.

**Review:**

If any of the statements above were not checked, revise the block diagram(s) and ensure all statements have been checked.

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 6. Steam Electric Generating Unit Information

**Instructions:** Throughout Section 6 (Questions A6-1 to A6-2), provide information requested on each steam electric generating unit that the plant has operated or any steam electric generating units the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Plants do NOT need to include information on units retired before December 31, 2008. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A6-1.** In Table A-8, provide information for each steam electric generating unit that the plant operated any time PRIOR to December 31, 2009. Plants do NOT need to include information on units retired before December 31, 2008. For combined cycle systems, provide EIA Generator IDs for all steam and combustion turbines associated with the combined cycle system. Provide the electric generation for the entire combined cycle system in 2009. In the "Type of Unit" column, if you indicate "Other", provide an explanation in the Comments page. See the glossary for definitions of *base load*, *peaking*, *cycling*, and *intermediate*.

**Table A-8. Steam Electric Units Operated Prior to December 31, 2009**

Steam Electric Unit	EIA Generator ID	Operated in 2009	Type of Steam Electric Prime Mover (or Turbine)	Total Unit Electric Generation in 2009 (MW-hrs)	Total Unit Nameplate Capacity		Type of Unit	Is this Unit Now Retired?
					Steam Turbine Capacity (MW)	Combustion Turbine Capacity (MW)		
SE Unit-1		<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base l <input type="radio"/> Peaki <input type="radio"/> Cycli <input type="radio"/> Interm <input type="radio"/> Other, s	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No Was operated in previous years						
SE Unit-2		<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base l <input type="radio"/> Peaki <input type="radio"/> Cyclir <input type="radio"/> Interm <input type="radio"/> Other, :	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No was operated in previous years						
SE Unit-3		<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base l <input type="radio"/> Peakin <input type="radio"/> Cyclin <input type="radio"/> Interm <input type="radio"/> Other, s	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No was operated in previous years						

SE Unit-4	<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No was operated in previous years						
SE Unit-5	<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No was operated in previous years						
SE Unit-6	<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No was operated in previous years						
SE Unit-7	<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No was operated in previous years						
SE Unit-8	<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No was operated in previous years						

SE Unit-9		<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base lo <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Interme <input type="radio"/> Other, :	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No was operated in previous years						
SE Unit-10		<input type="radio"/> Yes Days of operation:					<input type="radio"/> Base lo <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Interme <input type="radio"/> Other, :	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No was operated in previous years						

CBI?  
 Yes

**A6-2.** In Table A-9, provide information for each steam electric generating unit that the plant operated AFTER January 1, 2010 or the plant is currently constructing/installing or planning to construct/install by December 31, 2015. For combined cycle systems, provide EIA Generator IDs for all steam and combustion turbines associated with the combined cycle system and provide the total capacity for all steam turbines and combustion turbines separately (i.e., sum the respective capacity for all steam turbines and combustion turbines associated with the combined cycle system). In the "Type of Boiler or Reactor" column, check all that apply. In the "Type of Unit" column, check all that apply. In the "Type of Unit" column, if you indicate "Other", provide an explanation in the Comments page. See the glossary for definitions of base load, peaking, cycling, and intermediate.

**Table A-9. Steam Electric Generating Units First Operated After January 1, 2010 or Planned Steam Electric Generating Units**

Steam Electric Unit	EIA Generator ID (if applicable) or Plant Designation	Type of Boiler or Reactor [check all that apply]	Type of Steam Electric Prime Mover (or Turbine)	Initial Date of Operation or Planned Date of Operation		Total Unit Nameplate Capacity		Type of Unit
				Month	Year	Steam Turbine Capacity (MW)	Combustion Turbine Capacity (MW)	
SE Unit-A		<input type="checkbox"/> Tangential-fired						<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermed <input type="radio"/> Other, sp
		<input type="checkbox"/> Wall-fired						
		<input type="checkbox"/> Cyclone-fired b						
		<input type="checkbox"/> Waste heat recov						
		<input type="checkbox"/> Pressurized w						
		<input type="checkbox"/> Boiling water re						
		<input type="checkbox"/> Pressurized hea						
		<input type="checkbox"/> Other, spec						
SE Unit-B		<input type="checkbox"/> Tangential-fired						<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermed <input type="radio"/> Other, sp
		<input type="checkbox"/> Wall-fired						
		<input type="checkbox"/> Cyclone-fired b						
		<input type="checkbox"/> Waste heat recov						
		<input type="checkbox"/> Pressurized w						
		<input type="checkbox"/> Boiling water re						
		<input type="checkbox"/> Pressurized hea						
		<input type="checkbox"/> Other, spec						
SE Unit-C		<input type="checkbox"/> Tangential-fired						<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermed <input type="radio"/> Other, sp
		<input type="checkbox"/> Wall-fired						
		<input type="checkbox"/> Cyclone-fired b						
		<input type="checkbox"/> Waste heat recov						
		<input type="checkbox"/> Pressurized w						
		<input type="checkbox"/> Boiling water re						
		<input type="checkbox"/> Pressurized hea						
		<input type="checkbox"/> Other, spec						
SE Unit-D		<input type="checkbox"/> Tangential-fired						<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermed <input type="radio"/> Other, sp
		<input type="checkbox"/> Wall-fired						
		<input type="checkbox"/> Cyclone-fired b						
		<input type="checkbox"/> Waste heat recov						
		<input type="checkbox"/> Pressurized w						
		<input type="checkbox"/> Boiling water re						
		<input type="checkbox"/> Pressurized hea						
		<input type="checkbox"/> Other, spec						

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title: 7. Condenser Cooling Water Systems**

**Instructions:** Throughout Section 7 (Questions A7-1 to A7-2), provide information requested for all condenser cooling water systems currently operating at the plant and any condenser cooling water systems the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A7-1.** In Table A-10, provide information for all condenser cooling water systems currently operating at the plant and any condenser cooling water systems the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Indicate the type of condenser cooling system and the specific steam electric generating units that the system cools. [Check all boxes that apply.] If the plant adds chemicals to the condenser cooling system, provide the chemical trade name, manufacturer, and active ingredient(s). If there is more than one active ingredient in the chemical additive, include all of them in the yellow box provided. Separate multiple entries with commas. Enter the typical amount of process wastewater generated or blown down from the cooling water system and the typical duration and frequency of generation or blow down. For planned cooling systems, provide this information to the extent known. Also enter the date that the cooling water system was initially brought on line or is planned to be brought on line.

**Table A-10. Condenser Cooling Systems for All Steam Electric Generating Units**

Cooling System ID	Type of Condenser Cooling System	Steam Electric Units that the System Cools (check all boxes that apply)	Chemical Additives Added to the Cooling System and Make-up Water System			Typical Amount of Process Wastewater Generated/Blow Down from Cooling System (gpm)	Typical Duration AND Frequency of Generation/ Blowdown (hpd AND dpy)
			Trade Name	Manufacturer	Active Ingredient(s)		
<b>Operating Condenser Cooling Water Systems</b>							
CS-1	Other: <span style="background-color: yellow;">                    </span>	<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	gpm	hpd
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					dpy
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
CS-2	Other: <span style="background-color: yellow;">                    </span>	<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	gpm	hpd
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					dpy
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
CS-3	Other: <span style="background-color: yellow;">                    </span>	<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	<span style="background-color: yellow;">                    </span>	gpm	hpd
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					dpy
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					
		<input type="checkbox"/> SE Un <input type="checkbox"/> SE Un					

Planned Cooling Water Systems										
CS-A		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
	Other:		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		
			<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		
CS-B		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
	Other:		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		
			<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		
CS-C		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un			
	Other:		<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		
			<input type="checkbox"/>	SE	Un	<input type="checkbox"/>	SE	Un		

CBI?  
 Yes

A7-2. How did the plant demonstrate compliance with limits on *priority pollutants* for cooling tower blowdown from these cooling systems? [Check all boxes that apply.]

- Waste stream monitoring
- Plant does not operate coolin
- Certification from supplier
- Engineering calculations
- Plant does not have priority pollutant limi
- Other, sp: [redacted]



Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name  
 SE Unit ID: Insert SE Unit ID

**Part: A**

**Section Title:** 8. Fuel Usage by Steam Electric Generating Unit

**Instructions:** In Section 8 (Question A8-1), provide information for all steam electric generating units that were operated in 2009, including units that operated for only part of 2009 (i.e., those units for which you responded "Yes" in Question A6-1, Table A-8, "Operated in 2009" column). Please provide all free response answers in the highlighted yellow areas.

Make copies of Section 8 for each steam electric generating unit ID operated in 2009 using the "Copy Section 8" button below. Enter the steam electric generating unit ID (use unit IDs assigned in Table A-8) in the space above titled "SE Unit ID".

Copy Section 8

**CBI?**  
 Yes

**A8-1.** In Table A-11, provide the types and amounts of fuels used in 2009. [Check all boxes that apply.] Include fuels used for start up. Also provide the BTU generated by each general fuel type reported for the year 2009.

**Table A-11. Fuel Usage for Steam Electric Power Generation in 2009**

Fossil/Nuclear Fuels								
Coal and Petroleum Coke		Gas		Oil		Nuclear		
BTU Generated by Coal and/or Petroleum Coke		BTU Generated by Gas		BTU Generated by Oil		BTU Generated by Nuclear Fuels		
Type	Amount (tons)	Type	Amount (Million ft <sup>3</sup> )	Type	Amount (barrels)	Type	Amount	Units (Specify)
<input type="checkbox"/> Anthr		<input type="checkbox"/> Natural Gas		<input type="checkbox"/> No. 1 Fuel Oil		<input type="checkbox"/> Nuclear		
<input type="checkbox"/> Bituminous		<input type="checkbox"/> Blast Furnace C		<input type="checkbox"/> No. 2 Fuel Oil		<input type="checkbox"/> Nor		
<input type="checkbox"/> Lignit		<input type="checkbox"/> Gaseous Propa		<input type="checkbox"/> No. 4 Fuel Oil				
<input type="checkbox"/> Subbituminous		<input type="checkbox"/> Other Gases (Pro		<input type="checkbox"/> No. 5 Fuel Oil				
<input type="checkbox"/> Waste Co				<input type="checkbox"/> No. 6 Fu				
<input type="checkbox"/> Coal Sy		<input type="checkbox"/> None		<input type="checkbox"/> Diesel I				
<input type="checkbox"/> Other Coal (Pro				<input type="checkbox"/> Jet Fuel				
				<input type="checkbox"/> Keroser				
<input type="checkbox"/> Petroleum Cokr				<input type="checkbox"/> Waste (				
<input type="checkbox"/> None				<input type="checkbox"/> Other Oil (Prov				
				<input type="checkbox"/> None				
<b>Total BTU Generated by Fossil/Nuclear Fuels</b>								
Other Fuels (i.e., Fuels other than Fossil or Nuclear)								
Type	Amount	Units (Specify)	Type	Amount	Units (Specify)			
<input type="checkbox"/> Municipal Solid			<input type="checkbox"/> Landfill Gas					
<input type="checkbox"/> Wood			<input type="checkbox"/> Other (Provide					
<input type="checkbox"/> Other Biomass								
<input type="checkbox"/> None								
<b>Total BTU Generated by Other Fuels</b>								
<b>Total BTU Generated by All Fuels</b>								

- CBI?**  
 Yes
- A8-2.** Do the total BTUs generated by the fossil/nuclear fuels comprise 50 percent or more of the total BTUs generated by all fuels for the steam electric generating unit in 2009?
- Yes  
 No
- CBI?**  
 Yes
- A8-3.** Did the plant report a fossil or nuclear fuel as the predominant or second most predominant energy source for this generating unit on Form EIA-860 for reporting year 2009? NOTE: This information is reported in Schedule 3, Part B, lines 9 and 11.
- Yes  
 No

If the plant responded "Yes" to either Question A8-2 or A8-3, then this steam electric generating unit is classified as a "fossil/nuclear electric generating unit" for the purposes of this questionnaire. If the plant responded "No" to both Questions A8-2 and A8-3, then this electric generating unit is classified as an "other electric generating unit" for the purposes of this questionnaire.

**NOTE: IF ALL STEAM ELECTRIC GENERATING UNITS IDENTIFIED IN TABLE A-8 ARE CLASSIFIED AS "OTHER ELECTRIC GENERATING UNITS" (BASED ON THE CLASSIFICATION DETERMINED FROM QUESTIONS A8-2 AND A8-3), DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title: 9. NOx Control Systems**

**Instructions:** Throughout Section 9 (Questions A9-1 to A9-11), provide information for all *NOx control systems* operated on fossil-fueled electric generating units after January 1, 2009 and all NOx control systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

**CBI?**  
 Yes

**A9-1.** Did the plant operate any NOx control systems on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any NOx control system on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-12)  
 No ([Skip to Section 10](#))

In Table A-12, provide information for NOx control systems that the plant has used, is currently constructing/installing, or planning to construct/install by December 31, 2020 on each operating or planned fossil-fueled electric generating unit (identified in Table A-8 or Table A-9). Provide the steam electric generating unit ID (use codes from Table A-8 or Table A-9), the type of NOx control system(s) operating or planned for the steam electric generating unit, whether the NOx control system(s) are operating or planned, and the date the NOx control was/will be installed. In addition, for the steam electric generating units serviced by a SCR system, identify the date and location (i.e., on- or off-site) of the last and next SCR catalyst replacement/regeneration.

**Table A-12. NOx Control Systems**

SE Unit ID	Type of NOx Control System	Status of NOx Control System	Date of Installation, Previous or Planned		For Steam Electric Generating Units Serviced by a SCR System						
					Date of Last SCR Catalyst Replacement or Regeneration		Where Last SCR Catalyst Regeneration Occurred	Date of Next Planned SCR Catalyst Replacement or Regeneration		Where Next SCR Catalyst Regeneration is Planned to Occur	
					Month	Year		Month	Year		Month
	<input type="checkbox"/> SCR										
	<input type="checkbox"/> SNCR										
	<input type="checkbox"/> Overfire /										
	<input type="checkbox"/> Low NOx b/										
	<input type="checkbox"/> Othe										
	<input type="checkbox"/> SCR										
	<input type="checkbox"/> SNCR										
	<input type="checkbox"/> Overfire /										
	<input type="checkbox"/> Low NOx b/										
	<input type="checkbox"/> Othe										

<input type="checkbox"/> SCR								
<input type="checkbox"/> SNCR								
<input type="checkbox"/> Overfire /								
<input type="checkbox"/> Low NOx b								
<input type="checkbox"/> Othe								
<input type="checkbox"/> SCR								
<input type="checkbox"/> SNCR								
<input type="checkbox"/> Overfire /								
<input type="checkbox"/> Low NOx b								
<input type="checkbox"/> Othe								
<input type="checkbox"/> SCR								
<input type="checkbox"/> SNCR								
<input type="checkbox"/> Overfire /								
<input type="checkbox"/> Low NOx b								
<input type="checkbox"/> Othe								
<input type="checkbox"/> SCR								
<input type="checkbox"/> SNCR								
<input type="checkbox"/> Overfire /								
<input type="checkbox"/> Low NOx b								
<input type="checkbox"/> Othe								

**CBI?**  
 Yes

**A9-2.** If the plant has sent an SCR catalyst off site for regeneration, provide the company name, location, and phone number for the company(ies) that performed the last two SCR catalyst regenerations.

Plant did not send SCR catalyst offsite

**Table A-13. Companies that performed the last two SCR catalyst regenerations**

Company Name	City	State	Telephone Number

CBI?  
 Yes

A9-3. If the SCR catalyst is regenerated on site, indicate whether process wastewater is generated from the regeneration process.

- Yes (Continue)
- No (Skip to Question A9-7)
- NA: SCR catalyst is NOT regenerated (Skip to Question A9-7)

CBI?  
 Yes

A9-4. Provide the typical volume of SCR catalyst regeneration wastewater generated (gpy) and the frequency at which the process wastewater is generated.

gpy  times every  year(s)

CBI?  
 Yes

A9-5. Is the SCR catalyst regeneration wastewater commingled with other wastewaters? If yes, indicate the wastewaters with which the SCR catalyst regeneration wastewater is commingled. [Check all boxes that apply.]

- Yes
  - Fly ash transport w.
  - Bottom ash transpc
  - FGD scrubber r
  - Cooling tower blo
  - Once-through cooli
  - Cleaning wastes from cleaning metal r
  - Other, spe
- No

CBI?  
 Yes

A9-6. What is the destination(s) of the SCR catalyst regeneration wastewater? If the plant recycles the process wastewater, indicate the plant process to which this process wastewater is recycled. [Check all boxes that apply.]

- Immediately recycled back to plant process. Please describe how the treated
- Transferred to on-site treatment system. Identify the type of treatment system
  - Settling pond  Constructed wetla
  - pH adjustment  Other, spe
  - Chemical precij
- Discharged to surface water. Provide NPDES permitted outfall n
- Indirect discharge to a publicly or privately owned treatment w
- Other, exp

CBI?  
 Yes

A9-7. Is the SCR catalyst washed on site?

- Yes (Continue)
- No (Skip to Section 10)

**CBI?**  
 Yes  
**A9-8.** Is process wastewater generated from the *SCR catalyst washing* process?  
 Yes (Continue)  
 No (Skip to Section 10)

**CBI?**  
 Yes  
**A9-9.** Provide the typical volume of *SCR catalyst washing wastewater* generated (gpy) and the frequency at which the process wastewater is generated.  
 \_\_\_\_\_ gpy \_\_\_\_\_ times every \_\_\_\_\_ year(s)

**CBI?**  
 Yes  
**A9-10.** Is the *SCR catalyst washing wastewater* commingled with other wastewaters? If yes, indicate the wastewaters with which the *SCR catalyst washing wastewater* is commingled. [Check all boxes that apply.]  
 Yes  
 Fly ash transport w:  
 Bottom ash transpc  
 FGD scrubber p  
 Cooling tower blo'  
 Once-through cooli  
 Cleaning wastes from cleaning metal p  
 Other, spe \_\_\_\_\_  
 No

**CBI?**  
 Yes  
**A9-11.** What is the destination(s) of the *SCR catalyst washing wastewater*? If the plant recycles the treated wastewater, indicate the plant process to which this waste is recycled. [Check all boxes that apply.]  
 Immediately recycled back to plant process. Please describe how the treated \_\_\_\_\_  
 Transferred to on-site treatment system. Identify the type of treatment system  
 Settling pond  Constructed wetla  
 pH adjustment  Other, spe \_\_\_\_\_  
 Chemical precij  
 Discharged to surface water. Provide NPDES permitted outfall n \_\_\_\_\_  
 Indirect discharge to a publicly or privately owned treatment w  
 Other, exp \_\_\_\_\_

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 10. Flue Gas Mercury Control Systems

**Instructions:** Throughout Section 10 (Questions A10-1 to A10-5), provide information for all *flue gas mercury control systems* (including those not currently operating) that are currently installed on fossil-fueled electric generating units and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Do NOT include FGD, SCR/SNCR, and *particulate matter control systems*. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

**CBI?**  
 Yes

**A10-1.** Are there any flue gas mercury control systems (other than FGD, SCR/SNCR, or *particulate matter control systems*) installed on fossil-fueled electric generating units or is the plant currently constructing/installing or planning to construct/install any flue gas mercury control systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-14)
- No (Skip to Question A10-3)

In Table A -14 provide information for all flue gas mercury control systems (other than FGD, SCR/SNCR, or particulate matter control systems) currently installed on fossil-fueled electric generating units (including those not currently operating) and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. Provide the type of mercury control system and the generating units that are or will be serviced by the system. [Check all boxes that apply.] For planned mercury control systems, provide the type of system it will be and all generating units that will be serviced by the system.

**Table A-14. Flue Gas Mercury Control Systems**

Mercury Control Systems	Type of Mercury Control System	Steam Electric Units that Exhaust to the System (Check all boxes that apply)	Date of Installation, Previous or Planned		Location of Mercury Control System in Relation to Initial Particulate Matter Control System	Handling of Mercury Control Solid Waste	Mercury Removal Efficiency (%)
			Month	Year			
<b>Currently Operating Flue Gas Mercury Control Systems</b>							
FGMC-1		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other:					

<b>FGMC-2</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					
<b>FGMC-3</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					
<b>FGMC-4</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					
<b>Planned Flue Gas Mercury Control Systems</b>							
<b>FGMC-A</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					
<b>FGMC-B</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					
<b>FGMC-C</b>		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit					
		<input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit <input type="checkbox"/> SE Unit Other: <span style="background-color: yellow;"></span>					



**CBI?**  
 Yes

**A10-2.** In the space below, provide a description of all flue gas mercury control system processes, the plant is currently operating, currently constructing/installing, or planning to construct/install by December 31, 2020. Include the solid wastes and process wastewater streams generated, the volume and characteristics (i.e., *pollutants* present) of the process wastewater generated, and any known or anticipated probable effect on other process wastewater (e.g., fly ash transport water). Additionally, indicate how the solid wastes and process wastewater from mercury control systems are/will be handled (e.g., are solid wastes combined with fly ash). Provide the final destination of all mercury control system wastes (e.g., sent to an ash pond or other impoundment, landfilled, or hauled off site).

[Redacted area]

**CBI?**  
 Yes

**A10-3.** Has the plant ever operated or does it plan to operate a pilot-scale flue gas mercury control system for a pilot study evaluation?

- Yes (Continue)
- No ([Skip to Section 11](#))

Specify the type(s) of technology studied:

[Redacted area]

**CBI?**  
 Yes

**A10-4** Did the study evaluate *process wastewaters* generated by the technology or identify that *process wastewater* will be generated or affected by the technology?

- Yes (Continue)
- No ([Skip to Section 11](#))

**CBI?**  
 Yes

**A10-5** Provide the name of the company whose technology was/will be tested, the start and end date of the pilot study, and attach the final technical evaluation report from the pilot study (if study is complete).

Company Name:

[Redacted area]

Start Date:

[Redacted area]

End Date:

[Redacted area]

- I have attached the final technical ev:
- I did not attach the final technical evaluation

[Redacted area]

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title: 11. Carbon Capture Systems**

**Instructions:** Throughout Section 11 (Questions A11-1 to A11-6), provide information for all *carbon capture systems* operated on fossil-fueled electric generating units after January 1, 2009 and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Provide this information for both full-scale and pilot-scale systems. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

**CBI?**  
 Yes

**A11-1.** Did the plant operate any *carbon capture systems* on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any carbon capture systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-15)  
 No (Skip to Section 12)

In Table A-15 provide information for carbon capture systems currently operating on fossil-fueled electric generating units at the plant and systems that the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. Provide the type of carbon capture system and the steam electric generating units that correspond to the system. [Check all boxes that apply.] For planned carbon capture systems, provide the type of system it will be and all steam electric generating units that will correspond to the system.

**Table A-15. Carbon Capture Systems**

CCS Systems	Type of Carbon Capture System	Steam Electric Units Corresponding to the System (Check all boxes that apply).		Date of Installation, Previous or Planned		Full Scale or Pilot Scale	Percent of Flue Gas Treated
				Month	Year		
<b>Currently Operating Carbon Capture Systems</b>							
CCS-1		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 6				
		<input type="checkbox"/> SE Unit 7	<input type="checkbox"/> SE Unit 8				
		Other: _____					
CCS-2		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 6				
		<input type="checkbox"/> SE Unit 7	<input type="checkbox"/> SE Unit 8				

		Other:				
--	--	--------	--	--	--	--

<b>CCS-3</b>		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 3				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 5				
		Other: _____					
<b>CCS-4</b>		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 3				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 5				
		Other: _____					
<b>Planned Carbon Capture Systems</b>							
<b>CCS-A</b>		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 3				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 5				
		Other: _____					
<b>CCS-B</b>		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 3				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 5				
		Other: _____					
<b>CCS-C</b>		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 2			<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 3				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 4				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 5				
		Other: _____					

**CBI?**  
 Yes

**A11-2.** In the space below, provide a description of all full-scale and pilot-scale carbon capture system processes, previously tested, previously operated, currently operating, currently being constructed/installed, and/or planned to construct/install by December 31, 2020. Provide a general description of the system, including the specific list of types of chemicals and equipment used, the types of process wastewater generated, and any known or anticipated probable effect on other *process wastewater* streams (e.g., fly ash transport water). Additionally, indicate how the process wastewater streams from the carbon capture process were/will be managed.

**CBI?**  
 Yes

**A11-3.** Has the plant operated any full-scale or pilot-scale carbon capture systems for studies in which process wastewaters generated by the technology were evaluated?

Yes (Continue)  
 No ([Skip to Section 12](#))

**CBI?**  
 Yes

**A11-4.** Provide the name of the company whose technology was tested, the start and end date of the study, and attach the final technical evaluation report from the study (if study is complete).

Company Name: \_\_\_\_\_

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

I have attached the final technical evaluation report  
 I did not attach the final technical evaluation report \_\_\_\_\_

**CBI?**  
 Yes

**A11-5.** Provide the typical volume of *process wastewater* generated from the carbon capture system (gpm) and the duration (hpd) and frequency (dpy) of *carbon capture wastewater* generation.

\_\_\_\_\_ gpm      \_\_\_\_\_ hpd      \_\_\_\_\_ dpy

**CBI?**  
 Yes

**A11-6.** Were characterization samples of the *carbon capture wastewater* collected during the study?

Yes (Continue)  
 No ([Skip to Section 12](#))

Provide the analytical results of the *carbon capture wastewater* characterization (if not already included in the technical report requested in Question A11-4).

I have attached the analytical results of the carbon capture wastewater characterization report  
 I did not attach the analytical results of the carbon capture wastewater characterization report \_\_\_\_\_

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** 12. Wet Electrostatic Precipitator Systems

**Instructions:** Throughout Section 12, provide information for all wet electrostatic precipitator (ESP) systems operated on fossil-fueled electric generating units after January 1, 2009 and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Provide this information for both full-scale and pilot-scale systems. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

**CBI?**  
 Yes

**A12-1.** Did the plant operate any wet ESP systems on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any wet ESP systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-16)  
 No (Skip to Section 13)

In Table A-16 provide information for wet ESP systems currently operating at the plant that service fossil-fueled electric generating units and systems that the plant is currently constructing/installing or planning to construct/install to service fossil-fueled electric generating units by December 31, 2020. Provide the steam electric generating units that correspond to the system, the date the system was/is planned to be installed, the location of the system, whether it is a full-scale or pilot-scale system, and if it is a pilot-scale system, the percent of flue gas that is treated.

**Table A-16. Wet Electrostatic Precipitator Systems**

Wet ESP System IDs	Steam Electric Units Corresponding to the System (Check all boxes that apply).	Date of Installation, Previous or Planned		Location of Wet ESP System	Full Scale or Pilot Scale	Percent of Flue Gas Treated
		Month	Year			
<b>Currently Operating Wet ESP Systems</b>						
WESP-1	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	

<b>WESP-2</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	
<b>WESP-3</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	
<b>WESP-4</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	
<b>Planned Wet ESP Systems</b>						
<b>WESP-A</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	
<b>WESP-B</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	
<b>WESP-C</b>	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 8 Other:			<input type="radio"/> Immediately downstream of <input type="radio"/> Immediately downstream of b <input type="radio"/> Immediately downstream of 1 <input type="radio"/> Other (Explain below)	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scal	

**CBI?**  
 Yes

**A12-2.** Provide the flow rate, duration, and frequency of the wastewater generated from the wet ESP system for calendar year 2009.

\_\_\_\_\_ gpm  
 \_\_\_\_\_ hpd  
 \_\_\_\_\_ dpy

**CBI?**

Yes

**A12-3.** Provide the source of the water used in the wet ESP system. [Check all boxes that apply.]

Raw intake water

Intake water that has been treated on site

Process wastewater, specify:

Other process wastewater, specify:

Other, explain:

**CBI?**

Yes

**A12-4.** For water sources that may be used in the wet ESP (e.g., fresh intake, recycled process water), indicate the maximum chlorides concentration and maximum solids percentage that is acceptable for the water to be used for those purposes. Identify any other criteria that the source water must meet.

Chlorides concentration:  ppm

Solids percentage:  %

Other, explain:

**CBI?**

Yes

**A12-5.** Indicate the destination(s) of the wet ESP wastewater. If the plant *recycles* the wet ESP wastewater, indicate the plant process to which this water is recycled. [Check all that apply.]

Immediately recycled back to plant process. Please describe how the wet ESP wastewater is recycled:

Transferred to solid separation process. Identify the type of solid separation process below. [Check all that apply.]

Dewatering bin       Hydrocyclones

Centrifuges       Filters

Other (Explain):

Transferred to treatment system reported in Tables D-1 or D-2. Identify the type of treatment system below

Settling pond       Chemical precipitation

Biological reactor - aerobic       Biological reactor - anoxic/anaerobic

Mechanical vapor compression (brine concentrator)       Constructed wetlands

Mechanical vapor compression (brine concentrator) with

Mechanical vapor compression (brine concentrator) with

Other, explain:

Discharged to surface water. Provide NPDES permitted outfall number (from F )

Indirect discharge to a publicly or privately owned treatment work

Deep well injection

Other, explain:





**CBI?**

Yes

**A12-6.** Has the plant operated any full-scale or pilot-scale wet ESP systems for studies in which process wastewaters generated by the technology were evaluated?

- Yes (Continue)
- No [\(Skip to Section 13\)](#)

**CBI?**

Yes

**A12-7.** Provide the name of the company whose technology was tested, the start and end date of the study, and attach the final technical evaluation report from the study (if study is complete).

Company Name:

Start Date:  End Date:

- I have attached the final technical eval
- I did not attach the final technical evaluation report

**CBI?**

Yes

**A12-8.** Were characterization samples of the wet ESP wastewater collected during the study?

- Yes (Continue)
- No [\(Skip to Section 13\)](#)

Provide the analytical results of the wet ESP wastewater characterization (if not already included in the technical report requested in Question A12-7).

- I have attached the analytical results of the wet ESP wastewater characterization
- I did not attach the analytical results of the wet ESP wastewater characterization

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: H**  
**Section Title:** 13. Coal Storage and Processing

**Instructions:** Throughout Section 13 (Questions A13-1 to A13-17), provide information regarding the storage, processing, and use of coal for all steam electric generating units that were operated in 2009. Please provide all free response answers in the highlighted yellow areas.

**CBI?**  
 Yes

**A13-1.** Did the plant store or process any coal on site in 2009? Processing coal includes any methods used to prepare the coal for use at the plant including but not limited to crushing/pulverizing coal.

- Yes (Continue)
- No (Skip to Question A13-16)

**CBI?**  
 Yes

**A13-2.** Provide the amount (gpy) and number of days of *discharge of coal pile runoff* in 2009. If there was no coal pile runoff discharge, enter “zero” and provide the reason in the Comments tab. The plant can estimate discharge of coal pile runoff, but a description of the estimation method must be included in the Comments tab.

gpy       number of days of discharge in 2009

**CBI?**

Yes

**A13-3.** Was the coal pile runoff monitored for pH?

- Yes (Continue)
- No (Skip to Question A13-4)

If yes, provide the pH range for the coal pile runoff generated at the plant (prior to any commingling with other water streams, including other stormwater).

pH in coal pile runoff: Minimum:  S.U.  
Maximum:  S.U.  
Median:  S.U.

**CBI?**

Yes

**A13-4.** Is coal pile runoff transferred to a pond/impoundment?

- Yes, transferred to a pond/impoundment
  - Segregated - specify pond/impoundment unit ID(s) from Table A-4
  - Commingled - specify pond/impoundment unit ID(s) from Table A-4
- No

**CBI?**

Yes

**A13-5.** Indicate the destination(s) of the coal pile runoff. If the plant recycles the coal pile runoff, indicate the plant process to which the coal pile runoff is recycled. [Check all that apply.]

Immediately recycled back to plant process. Please indicate the plant process(es) to which the process wastewater is recy

Fly or bottom ash sluicing

Flue gas desulfurization

Other, explain:

[Redacted]

Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply.]

Settling pond

Constructed wetlands

pH adjustment

Other, specify:

[Redacted]

Chemical precipitation

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2

[Redacted]

Indirect discharge to a publicly or privately owned treatment works

Other, explain:

[Redacted]

**CBI?**

Yes

**A13-6.** Indicate whether the plant washes the coal on site. (See the definition for *coal washing* in the glossary for assistance).

Yes (Continue)

No (Skip to Question A13-8)

Provide the average volume of *coal wash* water generated (gpm), the duration of water generation (hpd), and the frequency of water generation (dpy).

[Redacted] gpm

[Redacted] hpd

[Redacted] dpy

**CBI?**

Yes

**A13-7.** What is the destination(s) of the coal wash water? If the plant recycles the coal wash water, indicate the plant process to which this water is recycled. [Check all boxes that apply.]

Immediately recycled back to plant process. Please indicate the plant process(es) to which the wastewater is recycled

Fly or bottom ash sluicing

Flue gas desulfurization

Other, explain: [Redacted]

Transferred to pond(s)/impoundment(s). Provide the IDs of the pond/impoundment unit(s) previously defined in Table A-4:

[Redacted]

Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply.]

Settling pond

Constructed wetlands

Biological reactor - aerobic

Biological reactor - anoxic/anaerobic

Chemical precipitation

Other, specify: [Redacted]

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2): [Redacted]

Indirect discharge to a publicly or privately owned treatment works

Other, explain: [Redacted]

**CBI?**

Yes

**A13-8.** Did the plant blend more than one coal together on site during 2009? Blending is the act of intentionally mixing different coal types (e.g., bituminous and subbituminous) prior to combustion. Note that natural mixing of coal types that occurs in the coal piles does not constitute blending.

- Yes (Continue)
- No (Skip to Question A13-10)

**CBI?**

Yes

**A13-9.** Did the plant generate any process wastewater associated with the blending of the coals during 2009?

- Yes (provide amount below)

Over  days

- No

**CBI?**

Yes

**A13-10.** Did the plant pulverize coal for use in any boiler during 2009?

- Yes (Continue)
- No (Skip to Question A13-16)

**CBI?**

**A13-11.** Was any water used in the coal pulverization process, other than that used to for sluicing mill rejects?

Yes

- Yes (Continue)
- No (Skip to Question A13-12)

Provide the volume of coal pulverization *process wastewater* generated in 2009 (gpd OR gpy) and the frequency of this process wastewater generation (days).

Over  days

**CBI?**

**A13-12.** Were mill rejects sluiced in 2009?

Yes

- Yes (Continue)
- No (Skip to Question A13-14)

Provide the volume of *mill rejects sluice* water generated in 2009 (gpd OR gpy) and the frequency of sluice water generation (days).

Over  days

**CBI?**

**A13-13.** Were the mill rejects sluiced separately or were they sluiced with fly and/or bottom ash?

Yes



**CBI?** **A13-14.** Are the mill rejects pyritic?

- Yes
- Yes
- No
- Unknown

**CBI?** **A13-15.** Indicate how mill rejects are disposed of and provide amount(s). If the mill rejects are sent to a pond/impoundment, indicate whether they are combined with fly and/or bottom ash. [Check all boxes that apply.]

- Stored in/transferred to a pond/impoundment reported in Table A-4  tpd
  - Combined with fly ash in pond/impoundment
  - Combined with bottom ash in pond/impoundment
  - Not combined with fly or bottom ash in pond/impoundmen
- Stored in/transferred to a landfill reported in Table A-6  tpd
- Hauled off site for disposal  tpd
- Other, explain:   tpd

**CBI?** **A13-16.** Did the plant gasify coal, petroleum coke, or oil to operate an IGCC generating unit during 2009?

- Yes
- Yes
- No

**CBI?** **A13-17.** Is the plant currently operating, currently constructing/installing, or planning to construct/install by December 31, 2015 an *IGCC generating unit* that was not in operation during 2009?

- Yes
- Yes
- No

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name

**Part: A**  
**Section Title:** Part A Comments

**Instructions:** Cross reference your comments by question number and indicate the confidential status of your comment by checking the box next to "Yes" under "CBI?" (Confidential Business Information).

	Question Number	Comment
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		

<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		

<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		
<b>CBI?</b> <input type="checkbox"/> Yes		

Table A-17. Listing of Fossil-Type Fuels

Type of Fuel
<b>Coal</b>
Anthracite Coal
Bituminous Coal
Lignite Coal
Subbituminous Coal
Waste Coal (including anthracite culm, bituminous gob)
Other Coal
Coal Synfuel
<b>Oil</b>
Distillate Fuel Oil (including Diesel, No. 1, No. 2, and No. 4 fuel oils)
Jet Fuel
Kerosene
Residual Fuel Oil (including No. 5 and No. 6 fuel oil and Bunker C fuel oil)
Other Oil (Crude oil, liquid butane, liquid propane, re-refined motor oil, sludge oil, tar oil, other petroleum-based liquid wastes)
Waste Oil
<b>Petroleum Coke</b>
Petroleum Coke
<b>Gas</b>
Blast Furnace Gas
Natural Gas
Gaseous Propane
Other Gases (Define on "Comments Page", NOT including landfill gas or biomass gas)

**Steam Electric Questionnaire Code Tables**

<b>Process Wastewaters</b>	
<i>For Use in Tables and Questions throughout Parts A, B, C, D, and F.</i>	
Air heater cleaning water	AHCW
Ash pile runoff	APR
Boiler blowdown	BB
Boiler fireside cleaning water	BFCW
Boiler tube cleaning water	BTCW
Bottom ash sluice	BAS
Carbon capture wastewater	CCAPW
Coal pile runoff	CPR
Combined ash sluice	CAS
Combustion turbine cleaning (combustion gas portion of turbine) water	COMBCW
Combustion turbine cleaning (compressor portion of the turbine) water	COMPRCW
Combustion turbine evaporative coolers blowdown	TECB
Cooling tower blowdown	CTB
FGD scrubber purge	SCRBP
FGD slurry blowdown	FGDB
Filter Backwash	FLTBW
Floor drain wastewater	FDW
Flue gas mercury control system wastewater	FGMCW
Fly ash sluice	FAS
General runoff	GR
Gypsum pile runoff	GPR
Gypsum wash water	GYPWW
Ion exchange wastewater	IXW
Landfill runoff - capped landfill	LRC
Landfill runoff - uncapped landfill	LRUC
Leachate	LEACH
Limestone pile runoff	LPR
Mill reject sluice	MRS

<b>Treated Wastewaters</b>	
<i>For Use as Effluents from Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-4.</i>	
Effluent - 1	EFF-1
Effluent - 2	EFF-2
Effluent - 3	EFF-3
Effluent - 4	EFF-4
Effluent - 5	EFF-5
Effluent - 6	EFF-6
Filter backwash	FltBW
Sludge	SLDG
<i>For Use as Influent to Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-3, AND Recycled Waters Throughout Questionnaire.</i>	
POND-1 Effluent	POND-1-EFF
POND-2 Effluent	POND-2-EFF
POND-3 Effluent	POND-3-EFF
POND-4 Effluent	POND-4-EFF
POND-5 Effluent	POND-5-EFF
POND-6 Effluent	POND-6-EFF
POND-7 Effluent	POND-7-EFF
POND-8 Effluent	POND-8-EFF
POND-9 Effluent	POND-9-EFF
POND-10 Effluent	POND-10-EFF
POND-A Effluent	POND-A-EFF
POND-B Effluent	POND-B-EFF
POND-C Effluent	POND-C-EFF
WWT-1 Effluent	WWT-1-EFF
WWT-2 Effluent	WWT-2-EFF
WWT-3 Effluent	WWT-3-EFF
WWT-4 Effluent	WWT-4-EFF
WWT-5 Effluent	WWT-5-EFF

**Steam Electric Questionnaire Code Tables**

<b>Process Wastewaters</b>	
<i>For Use in Tables and Questions throughout Parts A, B, C, D, and F.</i>	
Once -through cooling water	CW
Reverse osmosis reject water	RORW
SCR catalyst regeneration wastewater	SCRRW
SCR catalyst washing wastewater	SCRWW
Soot blowing wash water	SOOTW
Steam turbine cleaning water	STCW
Yard drain wastewater	YARDW

<b>Treated Wastewaters</b>	
<i>For Use as Influent to Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-3, AND Recycled Waters Throughout Questionnaire.</i>	
WWT-6 Effluent	WWT-6-EFF
WWT-A Effluent	WWT-A-EFF
WWT-B Effluent	WWT-B-EFF
WWT-C Effluent	WWT-C-EFF

**Steam Electric Questionnaire Code Tables**

<b>Wastewater Treatment Units</b>	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Adsorptive media	ADSORB
Aerobic Biological Reactor	AERBIO
Anaerobic Biological Reactor	ANBIO
Aerobic/Anaerobic Biological Reactor	AER/ANBIO
Chemical Precipitation Reaction Tank 1 - 1	CP-1-1
Chemical Precipitation Reaction Tank 1 - 2	CP-1-2
Chemical Precipitation Reaction Tank 2 - 1	CP-2-1
Chemical Precipitation Reaction Tank 2 - 2	CP-2-2
Chemical Precipitation Reaction Tank 3 - 1	CP-3-1
Chemical Precipitation Reaction Tank 3 - 2	CP-3-2
Clarification, Primary - 1	CL-P-1
Clarification, Primary - 2	CL-P-2
Clarification, Secondary - 1	CL-S-1
Clarification, Secondary - 2	CL-S-2
Clarification, Tertiary - 1	CL-T-1
Clarification, Tertiary - 2	CL-T-2
Constructed wetland - Cell 1	CWL -1
Constructed wetland - Cell 2	CWL -2
Constructed wetland - Cell 3	CWL -3
Constructed wetland - Cell 4	CWL -4
Constructed wetland - Cell 5	CWL -5
Constructed wetland - Cell 6	CWL -6
Constructed wetland system	CWTS
Equalization, Primary	EQ-P
Equalization, Secondary	EQ-S
Filter, Microfiltration - 1	FLT-M-1
Filter, Microfiltration - 2	FLT-M-2

<b>Destinations</b>	
<i>For Use in Tables and Questions Throughout Parts A, C, D, and F.</i>	
Burned on site	BURN
Deep-well injection	DWELL
Discharge to POTW	POTW
Discharge to PrOTW	PrOTW
Discharge to surface water	SW
Evaporation	EVAP
Hauled off site for reuse (removal fee)	HAULR - RF
Hauled off site for reuse (given away)	HAULR - GA
Hauled off site for reuse (marketed and sold)	SOLD
Hauled off site for disposal	HAUL
Mixed with fly ash for disposal	MFA
On-site landfill (as reported in Table A-6)	LANDF
POND-1	POND-1
POND-2	POND-2
POND-3	POND-3
POND-4	POND-4
POND-5	POND-5
POND-6	POND-6
POND-7	POND-7
POND-8	POND-8
POND-9	POND-9
POND-10	POND-10
POND-A	POND-A
POND-B	POND-B
POND-C	POND-C
WWT-1	WWT-1
WWT-2	WWT-2



**Steam Electric Questionnaire Code Tables**

<b>Wastewater Treatment Units</b>	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Filter, Microfiltration - 3	FLT-M-3
Filter, Microfiltration - 4	FLT-M-4
Filter, Sand/Gravity - 1	FLT-S-1
Filter, Sand/Gravity - 2	FLT-S-2
Filter, Sand/Gravity - 3	FLT-S-3
Filter, Sand/Gravity - 4	FLT-S-4
Filter, Ultrafiltration - 1	FLT-U-1
Filter, Ultrafiltration - 2	FLT-U-2
Filter, Ultrafiltration - 3	FLT-U-3
Filter, Ultrafiltration - 4	FLT-U-4
Filter press - 1	FP-1
Filter press - 2	FP-2
Holding tank	HT
Ion exchange	IX
Natural wetlands	NW
pH adjustment - 1	PH-1
pH adjustment - 2	PH-2
pH adjustment - 3	PH-3
Reverse osmosis	ROS
Pond Unit - 1	SPD-1
Pond Unit - 2	SPD-2
Pond Unit - 3	SPD-3
Pond Unit - 4	SPD-4
Pond Unit - 5	SPD-5
Pond Unit - 6	SPD-6
Pond Unit - 7	SPD-7
Pond Unit - 8	SPD-8
Pond Unit - 9	SPD-9

<b>Destinations</b>	
<i>For Use in Tables and Questions Throughout Parts A, C, D, and F.</i>	
WWT-3	WWT-3
WWT-4	WWT-4
WWT-5	WWT-5
WWT-6	WWT-6
WWT-A	WWT-A
WWT-B	WWT-B
WWT-C	WWT-C
Reuse as boiler water	RECYC - BW
Reuse as bottom ash sluice	RECYC - BAS
Reuse as combined ash sluice	RECYC - CAS
Reuse as FGD slurry preparation water	RECYC - FGDP
Reuse as FGD absorber makeup	RECYC - FGDAB
Reuse as fly ash sluice	RECYC - FAS
Reuse as mill reject sluice	RECYC - MRS
Reuse in cooling towers	RECYC - CW

## Steam Electric Questionnaire Code Tables

<b>Wastewater Treatment Units</b>	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Pond Unit - 10	SPD-10
Pond Unit - 11	SPD-11
Pond Unit - 12	SPD-12
Pond Unit - 13	SPD-13
Pond Unit - 14	SPD-14
Settling tank - 1	ST-1
Settling tank - 2	ST-2
Settling tank - 3	ST-3
Settling tank - 4	ST-4
Settling tank - 5	ST-5
Thickener - 1	TH-1
Thickener - 2	TH-2
Vacuum drum filter - 1	VF-1
Vacuum drum filter - 2	VF-2
Vacuum filter belt - 1	VFB-1
Vacuum filter belt - 2	VFB-2

<b>Solids Handling</b>	
<i>For Use as Planned Solids Handling for the FGD Slurry Blowdown in Part B Table B-2.</i>	
Centrifuge - 1	CENT-1
Centrifuge - 2	CENT-2
Centrifuge - 3	CENT-3
Centrifuge - 4	CENT-4
Hydrocyclones - 1	HYC-1
Hydrocyclones - 2	HYC-2
Hydrocyclones - 3	HYC-3
Hydrocyclones - 4	HYC-4
Filter press - 1	FP-1
Filter press - 2	FP-2
Thickener - 1	TH-1
Thickener - 2	TH-2
Vacuum drum filter - 1	VF-1
Vacuum drum filter - 2	VF-2
Vacuum filter belt - 1	VFB-1
Vacuum filter belt - 2	VFB-2

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name  
 Outfall Number: Insert Outfall Number

**Part: A**  
**Section Title: 2.2. Outfall Information**

**Instructions:** Throughout Section 2.2 (Question A2-5 to A2-10), provide information for all internal and final outfalls designated in the plant's NPDES permit. Please provide all free response answers in the highlighted yellow areas.

Make copies of Section 2.2 for each outfall designated in the plant's NPDES permit using the "Copy Section 2.2" button below. Enter the outfall number in the space provided above.

**CBI?**  
 Yes

**A2-5.** Provide the name, latitude/longitude, the typical volume of *discharge* in 2009 (either gpd and gpy OR gpm and hpd if flow is intermittent), and the number of days of discharge in 2009 for the outfall.

Outfall Name:

Coordinates	Degrees	Minutes	Seconds
Latitude			
Longitude			

Discharge Flow:  gpd  gpm  
**and** **and**  
 gpy **OR**  hpd  
**and** **and**  
 dpy  dpy

**CBI?**  
 Yes

**A2-6.** Identify if the outfall is an internal or final outfall.

- Internal Outfall [\(Skip to Section 3\)](#)
- Final Outfall (Continue)

**CBI?**

Yes

**A2-7.** Does the outfall release water to a discharge canal prior to discharging to surface water?

Yes

No

**CBI?**

Yes

**A2-8.** Provide the receiving surface water name and type of surface water. If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

Receiving Surface Water Name:

Type of Surface Water:

Other, specify:

If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

**CBI?**

Yes

**A2-9.** Has a mixing zone been applied to the outfall?

Yes

No

**CBI?**

Yes

**A2-10.** In Table A-3, provide the percent contribution that each wastewater listed has to the total outfall flow.

**Table A-3. Wastewaters Discharged Through Outfall**

Wastewater	Percent Contribution of Outfall Flow
Cooling Water	
Fly Ash Sluice	
Bottom Ash Sluice	
FGD Scrubber Wastewater (slurry blowdown or scrubber purge)	
Leachate from Coal Combustion Residue Landfills or Ponds/Impoundments	
Coal Pile Runoff	
Metal Cleaning Waste	
Other	
Total	100%

Plant ID: Insert Plant ID  
 Plant Name: Insert Plant Name  
 SE Unit ID: Insert SE Unit ID

**Part: A**  
**Section Title:** 8. Fuel Usage by Steam Electric Generating Unit

**Instructions:** In Section 8 (Question A8-1), provide information for all steam electric generating units that were operated in 2009, including units that operated for only part of 2009 (i.e., those units for which you responded "Yes" in Question A6-1, Table A-8, "Operated in 2009" column). Please provide all free response answers in the highlighted yellow areas.

Make copies of Section 8 for each steam electric generating unit ID operated in 2009 using the "Copy Section 8" button below. Enter the steam electric generating unit ID (use unit IDs assigned in Table A-8) in the space above titled "SE Unit ID".

**CBI?**  
 Yes

**A8-1.** In Table A-11, provide the types and amounts of fuels used in 2009. [Check all boxes that apply.] Include fuels used for start up. Also provide the BTU generated by each general fuel type reported for the year 2009.

**Table A-11. Fuel Usage for Steam Electric Power Generation in 2009**

Fossil/Nuclear Fuels								
Coal and Petroleum Coke		Gas		Oil		Nuclear		
BTU Generated by Coal and/or Petroleum Coke		BTU Generated by Gas		BTU Generated by Oil		BTU Generated by Nuclear Fuels		
Type	Amount (tons)	Type	Amount (Million ft <sup>3</sup> )	Type	Amount (barrels)	Type	Amount	Units (Specify)
<input type="checkbox"/> Anthr		<input type="checkbox"/> Natural Gas		<input type="checkbox"/> No. 1 Fuel Oil		<input type="checkbox"/> Nuclear		
<input type="checkbox"/> Bituminous		<input type="checkbox"/> Blast Furnace C		<input type="checkbox"/> No. 2 Fuel Oil		<input type="checkbox"/> Nor		
<input type="checkbox"/> Lignit		<input type="checkbox"/> Gaseous Propa		<input type="checkbox"/> No. 4 Fuel Oil				
<input type="checkbox"/> Subbituminous		<input type="checkbox"/> Other Gases (Pro		<input type="checkbox"/> No. 5 Fuel Oil				
<input type="checkbox"/> Waste Co				<input type="checkbox"/> No. 6 Fu				
<input type="checkbox"/> Coal Sy		<input type="checkbox"/> None		<input type="checkbox"/> Diesel I				
<input type="checkbox"/> Other Coal (Pro				<input type="checkbox"/> Jet Fuel				
				<input type="checkbox"/> Keroser				
<input type="checkbox"/> Petroleum Cokr				<input type="checkbox"/> Waste (				
<input type="checkbox"/> None				<input type="checkbox"/> Other Oil (Prov				
				<input type="checkbox"/> None				
<b>Total BTU Generated by Fossil/Nuclear Fuels</b>								
Other Fuels (i.e., Fuels other than Fossil or Nuclear)								
Type	Amount	Units (Specify)	Type	Amount	Units (Specify)			
<input type="checkbox"/> Municipal Solid			<input type="checkbox"/> Landfill Gas					
<input type="checkbox"/> Wood			<input type="checkbox"/> Other (Provide					
<input type="checkbox"/> Other Biomass								
<input type="checkbox"/> None								
<b>Total BTU Generated by Other Fuels</b>								
<b>Total BTU Generated by All Fuels</b>								

- CBI?**  
 Yes
- A8-2.** Do the total BTUs generated by the fossil/nuclear fuels comprise 50 percent or more of the total BTUs generated by all fuels for the steam electric generating unit in 2009?
- Yes  
 No
- CBI?**  
 Yes
- A8-3.** Did the plant report a fossil or nuclear fuel as the predominant or second most predominant energy source for this generating unit on Form EIA-860 for reporting year 2009? NOTE: This information is reported in Schedule 3, Part B, lines 9 and 11.
- Yes  
 No

If the plant responded "Yes" to either Question A8-2 or A8-3, then this steam electric generating unit is classified as a "fossil/nuclear electric generating unit" for the purposes of this questionnaire. If the plant responded "No" to both Questions A8-2 and A8-3, then this electric generating unit is classified as an "other electric generating unit" for the purposes of this questionnaire.

**NOTE: IF ALL STEAM ELECTRIC GENERATING UNITS IDENTIFIED IN TABLE A-8 ARE CLASSIFIED AS "OTHER ELECTRIC GENERATING UNITS" (BASED ON THE CLASSIFICATION DETERMINED FROM QUESTIONS A8-2 AND A8-3), DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

State Names and Abbreviations	
	Select
ALABAMA	AL
ALASKA	AK
AMERICAN SAMOA	AS
ARIZONA	AZ
ARKANSAS	AR
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DELAWARE	DE
DISTRICT OF COLUMBIA	DC
FEDERATED STATES OF MICRONESIA	FM
FLORIDA	FL
GEORGIA	GA
GUAM	GU
HAWAII	HI
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
KANSAS	KS
KENTUCKY	KY
LOUISIANA	LA
MAINE	ME
MARSHALL ISLANDS	MH
MARYLAND	MD
MASSACHUSETTS	MA
MICHIGAN	MI
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NEBRASKA	NE
NEVADA	NV
NEW HAMPSHIRE	NH
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NORTH CAROLINA	NC
NORTH DAKOTA	ND
NORTHERN MARIANA ISLANDS	MP
OHIO	OH
OKLAHOMA	OK
OREGON	OR
PALAU	PW
PENNSYLVANIA	PA
PUERTO RICO	PR
RHODE ISLAND	RI
SOUTH CAROLINA	SC
SOUTH DAKOTA	SD
TENNESSEE	TN
TEXAS	TX

UTAH	UT
VERMONT	VT
VIRGIN ISLANDS	VI
VIRGINIA	VA
WASHINGTON	WA
WEST VIRGINIA	WV
WISCONSIN	WI
WYOMING	WY

Units
Select
gpd
gpy

Sluiced by
Select
Sluiced separately
Sluiced with fly ash
Sluiced with bottom ash
Sluiced with fly ash and bottom ash

Yes/No
Select
Yes
No

am/pm
Select
am
pm

Month
Select
January
February
March
April
May
June
July
August
September
October
November
December

Planned Month
Select
January
February
March
April
May



June
July
August
September
October
November
December
Unknown

Last Month
Select
January
February
March
April
May
June
July
August
September
October
November
December
N/A

Year
Select
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005

2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
<b>New Unit Year</b>
Select
2010
2011
2012
2013
2014
2015

<b>Planned Year</b>
Select
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Unknown

<b>Last Year</b>
Select
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990

1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
N/A

Type of Receiving Water
Select
Estuary
Great Lakes
Lake/Pond
Reservoir
River/Stream
Other

Process Wastewaters
Select
Air heater cleaning water
Ash pile runoff
Boiler blowdown
Boiler fireside cleaning water
Boiler tube cleaning water
Bottom ash sluice
Carbon capture wastewater
Coal pile runoff
Combined ash sluice
Combustion turbine cleaning (combustion gas portion of turbine) water
Combustion turbine cleaning (compressor portion of the turbine) water
Combustion turbine evaporative coolers blowdown
Cooling tower blowdown
FGD scrubber purge
FGD slurry blowdown
Filter Backwash
Floor drain wastewater
Flue gas mercury control system wastewater

Fly ash sluice
General runoff
Gypsum pile runoff
Gypsum wash water
Ion exchange wastewater
Landfill runoff - capped landfill
Landfill runoff - uncapped landfill
Leachate
Limestone pile runoff
Mill reject sluice
Once -through cooling water
Reverse osmosis reject water
SCR catalyst regeneration wastewater
SCR catalyst washing wastewater
Soot blowing wash water
Steam turbine cleaning water
Yard drain wastewater
Other

<b>Pond/Impoundment Unit ID</b>
Select
SPD-1
SPD-2
SPD-3
SPD-4
SPD-5
SPD-6
SPD-7
SPD-8
SPD-9
SPD-10
SPD-11
SPD-12
SPD-13
SPD-14
RET-SPD-1
RET-SPD-2
RET-SPD-3
RET-SPD-4
SPD-A
SPD-B
SPD-C
SPD-D
SPD-E

<b>Landfill ID</b>
Select
LANDFILL-1
LANDFILL-2
LANDFILL-3
LANDFILL-4
RET-LANDFILL-1
RET-LANDFILL-2

RET-LANDFILL-3
RET-LANDFILL-4
LANDFILL-A
LANDFILL-B
LANDFILL-C
LANDFILL-D

<b>Type of Turbine</b>
Select
Combined Cycle
Stand-Alone Steam Turbine

<b>Type of Cooling System</b>
Select
Dry Cooling
Once-Through
Recirculating
Other, specify below

<b>SCR Catalyst Wastewater Handled</b>
Select
Transferred to pond and/or wastewater treatment system
Transferred to pond or holding basin without discharge
Hauled off site
Discharged without treatment
Other (specify below)

<b>Operating/Planned</b>
Select
Operating
Planned

<b>Last Replaced/Regenerated</b>
Select
Replaced
Regenerated
Not replaced/regenerated

<b>Planned Replaced/Regenerated</b>
Select
Replaced
Regenerated
Unknown

<b>Last Onsite/Offsite</b>
Select
Onsite
Offsite
Not regenerated

<b>Planned Onsite/Offsite</b>
Select
Onsite
Offsite
Unknown

<b>Upstream/Downstream</b>
Select
Upstream
Downstream

<b>Wet/Dry</b>
Select
Wet
Dry

<b>SE Unit ID</b>
Select
SE Unit-1
SE Unit-2
SE Unit-3
SE Unit-4
SE Unit-5
SE Unit-6
SE Unit-7